



## M.O.E. Policy Manual

POLICY TITLE	GUIDELINES FOR ECONOMIC ANALYSES OF PRIVATE SECTOR POLLUTION ABATEMENT AND ENVIRONMENTAL PROTECTION MEASURES	NO. 02-01-01 Revised		
<u>Legislative Authority</u>  the <u>Environmental Protection Act</u> , Section 3 the <u>Ontario Water Resources Act</u> , Section 7				
<u>Statement of Principles</u>  This policy describes the purpose and content of economic analyses that may be required when developing (1) a Control Document for private sector pollution abatement activities, (2) evidence for a prosecution or (3) information for sentencing.  Various types of economic analyses are defined in this policy and the minimum requirements for such analyses are specified.  Procedures for initiating and administering economic analyses are detailed together with guidelines for determining whether a specific analysis should be carried out by Ministry staff or by consultants.  Consultation with external agencies will be undertaken as required  <u>Definitions</u>  <table border="0" data-bbox="240 1186 1414 1312"><tr><td><u>Economic Analysis</u></td><td>The application of economic principles to identify and evaluate the consequences of particular courses of action or changes in policy. The quantitative magnitudes of all</td></tr></table>			<u>Economic Analysis</u>	The application of economic principles to identify and evaluate the consequences of particular courses of action or changes in policy. The quantitative magnitudes of all
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<u>Point of Contact</u> Director, Policy and Planning Branch				
<u>Effective Date</u>  March 18, 1988				

relevant consequences are estimated, monetary values that are associated with these effects are assigned (where possible) and the incidence or distribution of these consequences and values among different groups, economic sectors and/or regions is determined.

Benefit-Cost Analysis

A type of comprehensive economic analysis in which all possible beneficial consequences (including program outputs or results), and all possible costs (including program inputs with any other relevant adverse consequences) are identified, quantified, and, where possible, valued or weighted to indicate social importance. The distribution of the benefits and costs are identified as well.

Cost Effectiveness Analysis

An economic analysis which is restricted to finding the least-cost method or means of achieving a pre-specified objective, or for achieving the greatest amount of a desired result for a fixed level of input or expenditure.

Financial Impact Analysis

An economic analysis which is restricted to the identification and evaluation of those consequences that affect the financial affairs of individuals, firms, municipalities, or individual sectors.

Firm

A corporation, company, partnership or individual that is subject to the Ministry's pollution abatement program requirements as stipulated in Policy 05-02.

Control Document

A control document is any written instrument which carries statutory authority. These include Minister's reports, licences, permits, certificates of approval, orders, control orders, requirements and directions, and program approvals.

1. Objective

The purpose of performing economic analyses is to generate information about the financial and economic consequences of Control Documents and abatement programs that can be used by the Minister and Ministry personnel in making decisions.

2. Purposes and Uses of Economic Analyses

- (a) Develop and defend Control Documents;
- (b) Develop and defend abatement programs;
- (c) As evidence in developing or pursuing prosecutions;
- (d) Provide information for sentencing;

3. Initiation Of An Economic Analysis3.1 Policy 05-02

An economic analysis may be initiated as a requirement under Policy 05-02.

3.2 Minister, Deputy Minister, Division Heads and Directors

An economic analysis may be initiated by the Minister, the Deputy Minister, a Division Head or a Director in the course of developing a Control Document or undertaking an investigation leading to a prosecution in order to:

- (a) document the financial and other resources that are necessary to comply with the proposed requirements;
- (b) identify the magnitude and the distribution of the economic and social consequences of compliance with the Control Document;
- (c) identify, quantify and value (where possible) the beneficial results of the proposed Control Document;

- (d) verify claims by a firm that a Control Document or other types of abatement actions will cause undue financial hardship or unemployment;
- (e) develop evidence of fraud or wrong-doing.

### 3.3 Protocol

Requests for economic analyses should be made through the appropriate Division Head, the Deputy Minister's Office or through the Director of Legal Services Branch to the Executive Director, Corporate Resources.

### 3.4 Timing

To ensure that adequate time is provided for economic analyses, the following minimum lead-times are required:

- (a) Benefit-Cost Analysis - 6 months;
- (b) Cost-Effectiveness Analysis - 3 months;
- (c) Financial Analysis - 3 months.

## 4. Required Information

### 4.1 Benefit-Cost Analysis

- (a) estimates of the physical requirements (equipment, materials, labour, etc.) and their financial values at various levels of abatement or degrees of environmental protection, as well as any cost reductions or revenues generated;
- (b) non-financial consequences of the abatement action including lay-offs, reduced or increased output or production;
- (c) quantitative estimates and/or qualitative descriptions of the environmental and social gains or losses resulting from the proposed action and where possible, estimates of the dollar values associated with these consequences.

4.2 Cost-Effectiveness Analysis

- (a) Quantitative specification of program objectives in terms of emission or discharge rates or ambient environmental quality levels;
- (b) A comprehensive specification of technologies or management procedures that will achieve the stated objectives alone or in combination;
- (c) Estimates of the capital and operating costs of implementing specified technologies or management techniques to achieve the stated objectives.

4.3 Financial Impact Analysis

In addition to the information described under 4.1(a), (b), 4.2(a), (b), and (c):

- (a) detailed financial statements of the firm's operation for at least five years including at minimum: consolidated income statements, balance sheets, statement of changes in financial position, relevant transfer prices and adopted accounting policies.
- (b) where a single establishment of a large, multi-establishment firm is the focus, disaggregated financial data for the specific establishment are required;
- (c) financial performance data for the industry in which the firm operates.

4.4 External Consultation

Consultation with other provincial ministries, the federal government and other agencies are to be undertaken as required.

5. Implementation

5.1 Responsibility

Requests for all analyses should be made to the Executive Director, Corporate Resources Division.

## 5.2 Coordination

The Policy and Planning Branch will:

- (a) determine whether analyses will be carried out in-house or by a consultant;
- (b) ensure the methodology used is consistent with the requirements of this and other relevant policies and is comparable with other analyses if required; and
- (c) ensure reports, data and other results of the analyses are maintained and accessible for future related issues.

## 6. Methodology

### 6.1 Criteria

The criteria used to evaluate the firm's ability to incur the costs of implementing the requirements of a Control Document include, but are not limited to:

- (a) calculation of a firm's financial performance indicators (including before- and after-tax profits, cash flow, debt levels, etc.) over the past five years including the expected Control Document compliance costs and productivity gains and comparison with:
  - the firm's actual financial performance indicators;
  - the financial performance indicators of the relevant industry.
- (b) magnitudes of employment changes and other social consequences of compliance;
- (c) comparison of the present value of expected future profits with compliance costs with the salvage value of the plant or other relevant assets.

6.2 Further Analyses

If a financial analysis indicates that the Control Document will impose financial hardships for the firm or where compliance likely will result in layoffs or other undesirable social and/or economic dislocations, more comprehensive economic analyses, such as a cost effectiveness and/or a benefit-cost analysis, may be required.

7. Provision of Relevant Information

Firms who claim effects of the kind described under 3.2(d) are expected to provide the requested information expeditiously to the appropriate Ministry personnel or its consultants.

8. Failure to Provide Requisite Information

Failure to provide required information will be interpreted to mean that the abatement action has no significant adverse effects on the firm in question.